

STRUCTURAL IMPROVEMENT OF GAS-ASSISTED EJECTION NEEDLE
OF INJECTION MOLDER
[She-ch'u Ch'eng-hsing-chi Chih Ch'i-t'i Pu-chu Ch'u-ch'i-chen
Chih Kou-tsao Kai-liang]

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TITLE	(54): STRUCTURAL IMPROVEMENT OF GAS- ASSISTED EJECTION NEEDLE OF INJECTION MOLDER
FOREIGN TITLE	[54A]: SHE-CH'U CH'ENG-HSING-CHI CHIH CH'I-T'I PU-CHU CH'U-CH'I-CHEN CHIH KOU-TSAO KAI-LIANG

[57] Claim:

A structural improvement of a gas-assisted ejection needle of an injection molder, consisting mainly of a conduit provided on the other side of a raw material jet nozzle, the conduit further being connected to a gas outlet device inside a die, the gas outlet device being constituted by an ejector pin and a gas outlet pin, and the ejector pin being long and tubular and hollow and being installed inside the die cavity, characterized in that: the lower half end inside the ejector pin is furnished with internal threading, the ring surface of the lower segment of the ejector pin has at least one slotted eye, the gas outlet pin has a threaded pin and a screw cap, and the surface of the threaded pin is provided with at least one gas channel groove; whereby the threaded pin of the gas outlet pin is screwed into the ejector pin, the inside of the screw cap is joined together with the ring surface of the bottom end of the ejector pin, the gas is conducted from the gas channel groove of the threaded pin to the slotted eye of the ejector pin, the gas can expand in all directions, it is applicable to specific molded products, and the goal of cleaning the gas outlet pin is achieved.

Brief Explanation of the Drawings:

Figure 1 is a cross-sectional schematic of the ejector pin device inside a die of "No. 84213627."

Figure 2 is a three-dimensional schematic of the ejector pin and gas outlet needle of "No. 84213627."

Figure 3 is a cross-sectional schematic of the ejector pin device inside a die of the present design.

Figure 4 is a three-dimensional exploded schematic of the present

design.

Figure 5 is a three-dimensional drawing of the assembly of the present design.

Figure 6 is a horizontal cross-sectional schematic after assembly of the present design.

Figure 7 is a vertical cross-sectional schematic after assembly of the present design.

[The second page, number 230, is not part of this utility model]

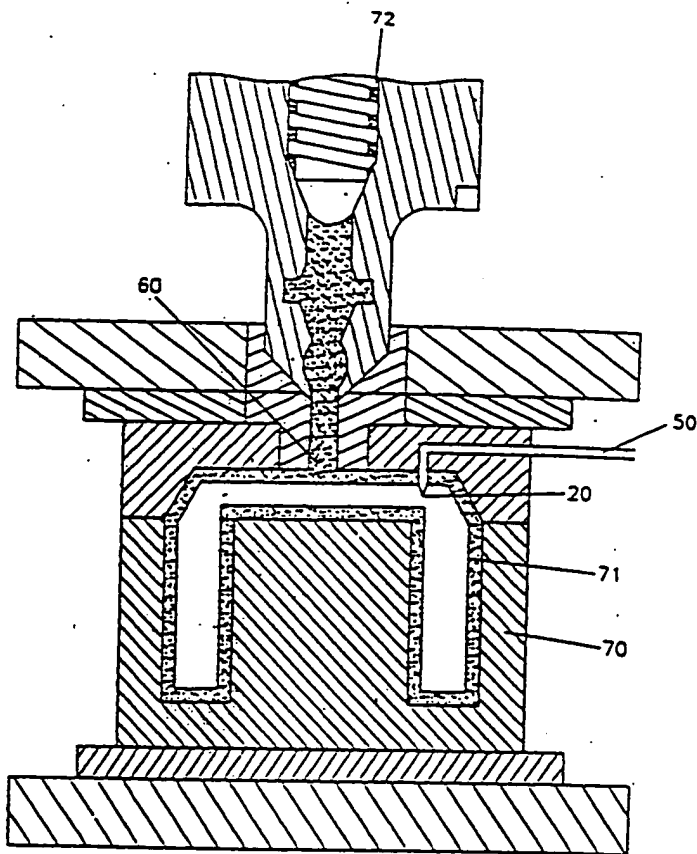


Figure 1

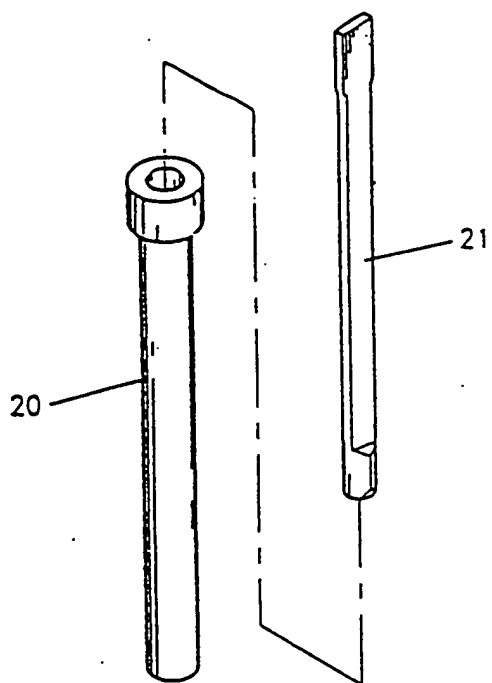


Figure 2

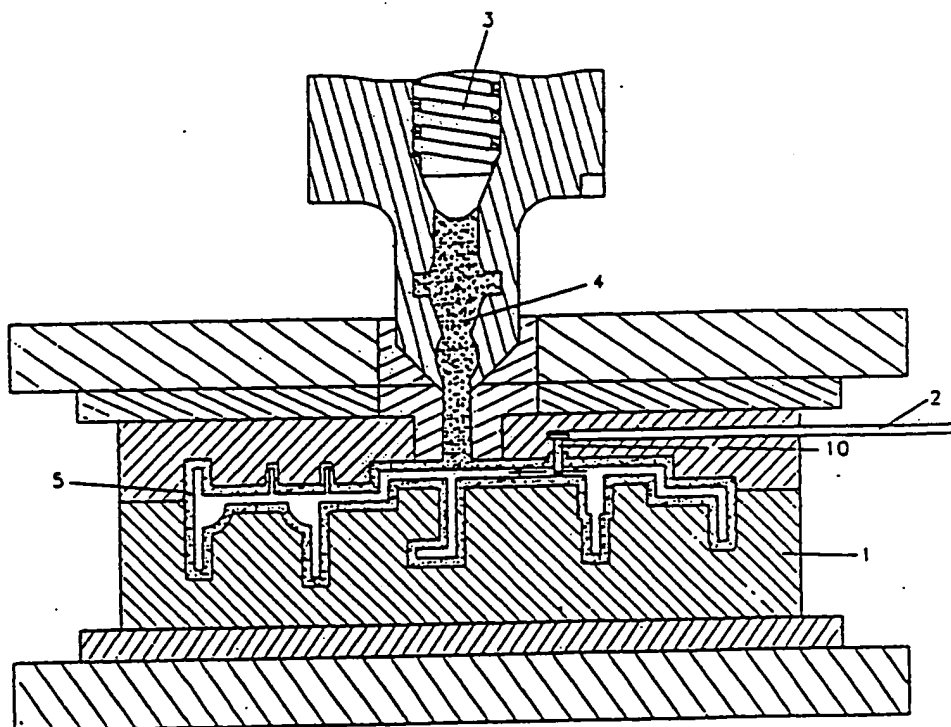


Figure 3

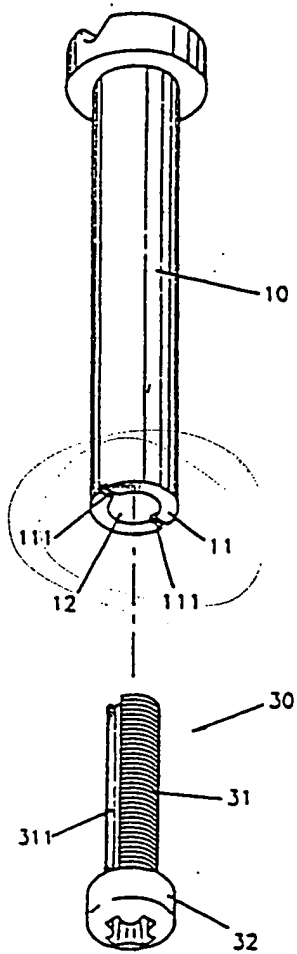


Figure 4

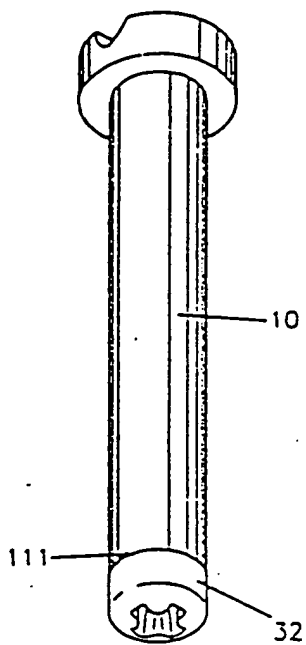


Figure 5

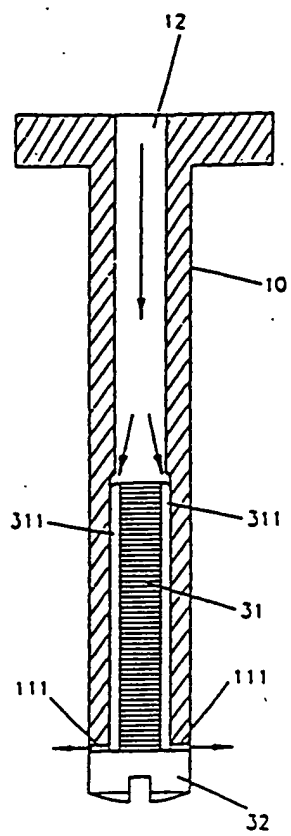


Figure 6

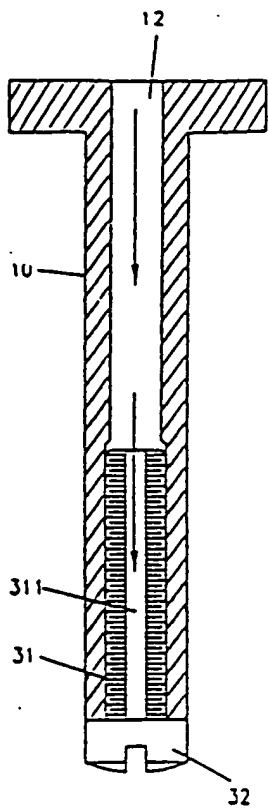


Figure 7

(1) 公告編號: 333900

(2) 中華民國87年(1998)06月11日

新 型

全 4 頁

(3) Int. Cl. 6: B29C45/17

稱: 射出成型機之氣體補助出氣針之構造改良

(4) 名

(5) 申請案號: 86215937

(22) 申請日期: 中華民國86年(1997)09月17日

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1

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(57) 申請專利範圍:

一種射出成型機之氣體補助出氣針之構造改良, 其主要係於原料噴射嘴另側設一管道, 管道再接至模具內出氣裝置, 出氣裝置由一頂桿及出氣桿所組成, 頂桿為長管形呈中空, 裝置於模具模穴內; 其特徵在於: 該頂桿內部下半段設有內螺紋, 頂桿底端之環面具有至少一道槽孔, 而出氣桿具有一螺紋桿及一螺帽, 螺紋桿表面上亦設有至少一氣道槽; 據此, 以該出氣桿之螺紋桿旋入頂桿內部, 並螺帽內面與頂桿底端環面貼合, 而氣體從螺紋桿之氣道槽通達頂桿之槽孔, 氣體可向四方擴張, 適用待定成型品, 且達到出氣桿易取出清潔之目的。

圖示簡單說明:

第一圖係『第八四二一三六二七號』頂桿裝置於模具內之剖面示意圖。

5. 第二圖係『第八四二一三六二七號』頂桿及出氣針之立體示意圖。

第三圖係本創作頂桿裝置於模具內之剖面示意圖。

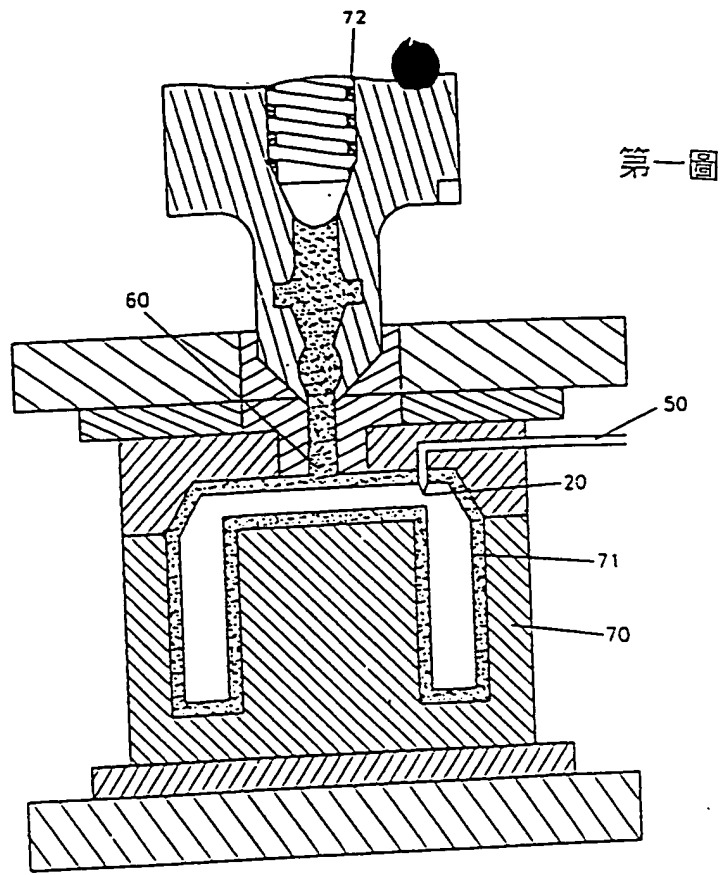
第四圖係本創作之立體分解示意圖。

10. 第五圖係本創作之立體組合圖。

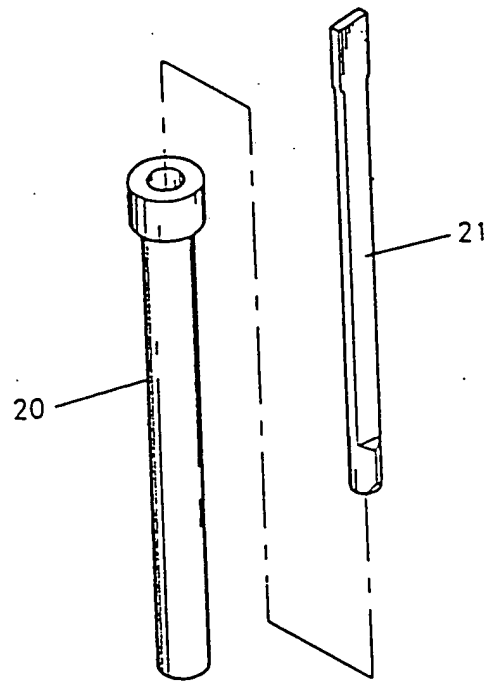
第六圖係本創作之組合後橫向剖面示意圖。

第七圖係本創作之組合後縱向剖面示意圖。

15.

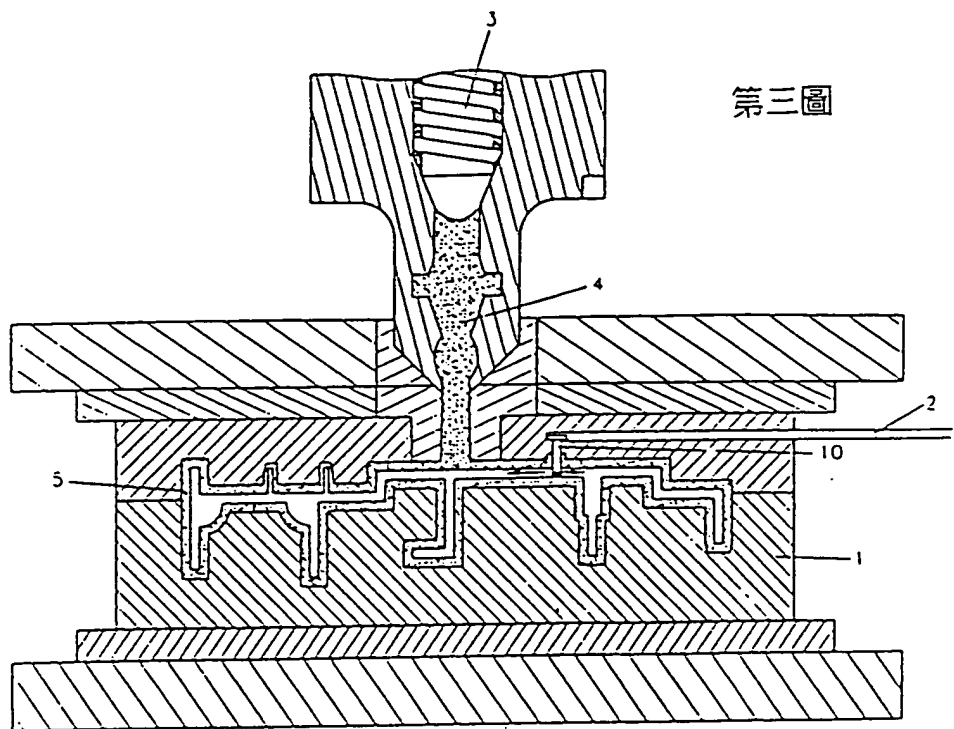


第一圖

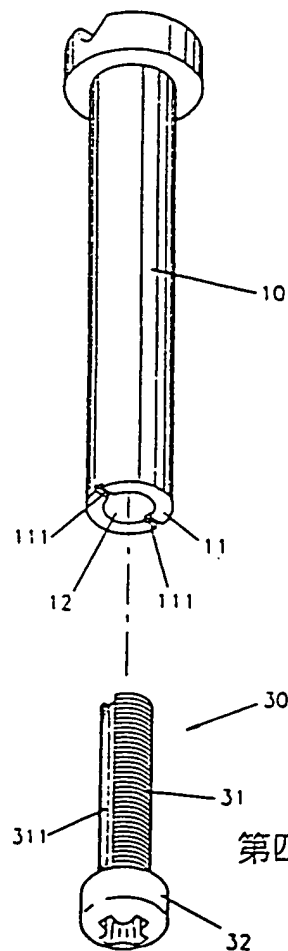


第二圖

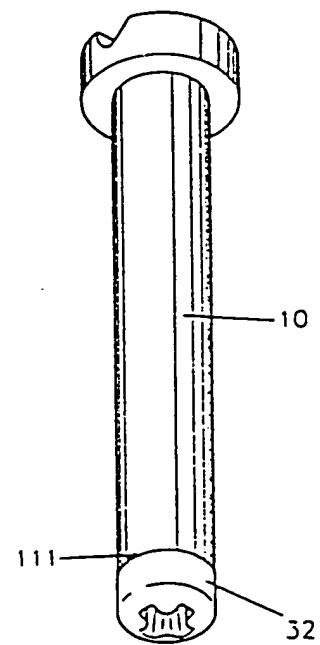
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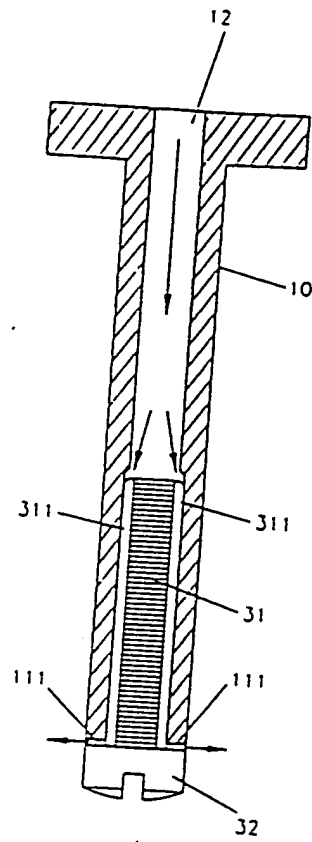
第三圖



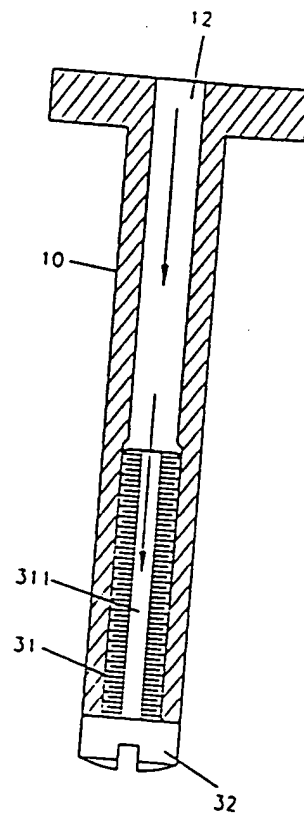
第四圖



第五圖



第六圖



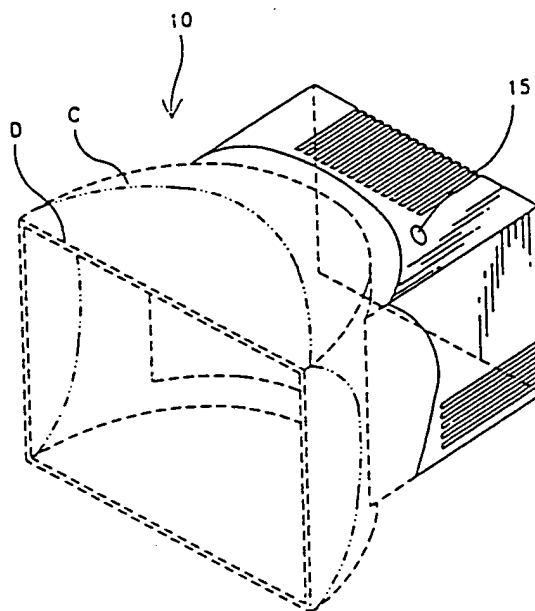
第七圖

第三圖：係如第二圖所示之顯示器
框架在開模後所顯現出具有合膠線之外
觀圖。

第三 A 圖：係如第三圖所示顯示器

框架之剖面示意圖。

第四圖：係本發明另一實施列外觀
示意圖。



第一圖 A